

Amendments to the Claims

Please amend the claims without prejudice. The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1-11. (Cancelled)

12. (Previously presented) An injector tool for ejecting a tracer in a system for monitoring a flow of liquid within a borehole, the injector tool comprising:

a body;

a piston to expel the tracer;

measuring means comprising at least one magnetic ring mounted on the piston and a plurality of Hall Effect switches mounted on the body, wherein an ejected quantity of the tracer is capable of being determined by measuring a displacement of the magnetic ring mounted on the piston relative to the switches mounted on the body.

13 -14. (Canceled)

15. (Previously presented) An injector tool according to claim 12, wherein

three magnetic rings are mounted on the piston;

the Hall Effect switches are organized into four independent arrays; and

the Hall Effect switches belonging to a determined array are tied to a single determined wire.

16. (Previously presented) An injector tool according to claim 12, further comprising:

a reservoir into which the tracer is stored;

an opening through which the tracer may be ejected from the injector tool;

an electro-valve to control the opening;

actuating means to move the piston such that the piston moves when the electro-valve opens the opening and the tracer is ejected.

17-21. (Canceled)

22. (Previously presented) An injector tool according to claim 12, the injector tool comprising:

a first group of hydraulic parts intended to be in contact with the tracer;

a second group of electrical elements;

wherein the hydraulic parts of the first group may be accessed and replaced during a maintenance operation; and

wherein the electrical elements of the second group remain protected during the maintenance operation.

23. (Previously presented) An injector tool according to claim 22, further comprising an

electro-valve, the electro-valve comprising:

an electrical portion belonging to the second group;

a solenoid seat belonging to the first group;

a high pressure barrier for isolating the electrical portion of the electro-valve from the solenoid seat;

wherein the electro-valve is mounted in the injector tool such that the solenoid seat may be accessed without removing the electrical portion.

24. (Previously presented) An injector tool according to claim 22, further comprising

electrical wires belonging to the second group;

a connector allowing to connect the electrical elements of the second group with other electrical elements of a distinct tool, the connector comprising a first portion and a second portion, wherein the first portion may be removed during the maintenance operation and wherein the second portion continues to protect the electrical wires during the maintenance operation.

25 -26. (Canceled)

27. (Previously presented) A tool system for monitoring a flow of liquid within a borehole comprising:

a plurality of tools disposed on a longitudinal axis of the tool system, the plurality of tools comprising at least a first injector tool according to claim 12 for ejecting in the borehole a tracer and a detector tool to detect the ejected tracer;

a standard digital bus traversing at least a portion of each tool of the plurality of tools, the standard digital bus allowing a communication between each tool of the plurality of tools.

28. (Previously presented) The tool system of claim 27, wherein the plurality of tools comprises a control tool to manage data exchanges through the standard digital bus.

29. (Currently amended) The tool system of claim 27, wherein the plurality of tools comprises the first injector tool and a second injector tool according to claim 12, the second injector tool being located on an opposite side of the detector tool of the tool system as compared to the first injector tool so as to allow to detect a possible reverse flow in the borehole.

30. (Currently amended) The tool system of claim 27, wherein the plurality of tools comprises the first also comprises a third injector tool according to claim 12 and a second injector tool distinct from the first injector tool, the second third injector tool being located on the same side of the detector tool in the tool system as the first injector tool.

31. (Previously presented) The tool system of claim 27, wherein

the borehole has a longitudinal direction that is substantially horizontal;

the plurality of tools also comprises an orientating tool to measure an orientation of at least an ejection port of the first injector tool.

32. (Previously presented) The tool system of claim 27, wherein the first injector tool comprises a first group of electrical wires corresponding to the standard digital bus and at least one standard connector allowing to removably connect the first group of electrical wires to a

second group of electrical wires corresponding to the standard digital bus within a distinct tool from the plurality of tools.

33. (Previously presented) The tool system according to claim 32, wherein both the first group of electrical wires and the second group of electrical wires comprise two power wires dedicated to power transportation and two signal wires dedicated to signal transportation.